

The Biologist



Vol. XXIX, Nos. 3 & 4

May, 1947

Phi Sigma

BIOLOGICAL HONOR SOCIETY

"The object of Phi Sigma is to promote interest in biological research. Although originally designated as an honorary biological research society, it should not be considered as a working guild of biologists interested in research. In effect, election to Phi Sigma should be an opportunity for better work, rather than merely election to an honorary society."

Mile Posts:

- 1915 March 17, Alpha Chapter organized, Ohio State University, Columbus.
- 1916 May, Central Governing Body organized, BIOLOGIST first issued.
- 1917 June, last War-time BIOLOGIST issued.
- 1921 February, BIOLOGIST revived.
- 1924 December, First National Meeting, Constitution revised, Washington, D.C.
- 1925 December, Second National Meeting, First Science Program, Kansas City.
- 1926 December, Third National Meeting, Second Science Program, Philadelphia.
- 1927 December, Third Science Program, Nashville.
- 1928 December, Fourth National Meeting, Coat-of-Arms adopted, Fourth Science Program, New York.
- 1930 January, Council Meeting, Ritual Revised, Norman, Okla.
December, Fifth National Meeting, Fifth Science Program, Cleveland.
- 1931 Phi Sigma Letters Registered, U. S. Patent Office.
- 1932 December, Sixth Science Program, Atlantic City.
- 1933 June, Sixth National Meeting, Seventh Science Program, Chicago.
- 1935 December, Seventh National Meeting, Eighth Science Program, St. Louis.
- 1937 December, Eighth National Meeting, Ninth Science Program, Indianapolis.
- 1939 December, Ninth National Meeting, Tenth Science Program, Silver Anniversary, Ohio State University, Columbus.
- 1941 December, Tenth National Meeting, Dallas, Texas.
- 1947 December, Eleventh National Meeting, Boston, Mass.

Expansion:

The Constitution provides that: "An active chapter may be established in any institution of learning which requires for graduation the equivalent of four years of collegiate work, and which is equipped with facilities for research work. - - - Any petitioning group must be active for at least one year before it may be granted a charter."

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Denver, Colo., May, 1947

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Published by the Phi Sigma Society, an organization devoted to the promotion of interest in biological research, founded at Ohio State University, March 17, 1915. The Biologist is the official quarterly publication of the society, issued ordinarily in October, December, February and April, as a medium of exchange between chapters, as an interpreter of Council policies, and as a stimulus to the fellowship in science for which Phi Sigma stands.

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Contents

Chapter Directory	38
Alpha Tau Installed	40
Iniciacion de Alpha Tau	43
The Padre Was a Biologist	48
National Meeting	62
Phi Sigma Heads Navy's Medics	63
"Biologist" Due for a Change	64
Chapter News Letters	66
Book Reviews	72

Directory

OF ALL ACTIVE CHAPTERS

The list of chapter officers for this school year will be found in the Chapter News section.

BETA

University of Michigan, Ann Arbor, Michigan, founded June 3, 1916.

EPSILON

University of Denver, Denver, Colorado, founded March 5, 1917.

ZETA

University of Wisconsin, Madison, Wisconsin, founded May 30, 1917.

ETA

University of Akron, Akron, Ohio, founded April 20, 1921.

KAPPA

University of Kansas, Lawrence, Kansas, founded May 31, 1921.

LAMBDA

Montana State University, Missoula, Montana, founded May 4, 1921.

MU

University of California, Berkeley, California, founded April 27, 1922.

NU

Washington and Jefferson College, Washington, Pennsylvania, founded May 11, 1922.

PI

Emory University, Georgia, founded January 3, 1925.

RHO

University of Illinois, Urbana, Illinois, founded March 28, 1925.

SIGMA

University of Florida, Gainesville, Florida, founded December 4, 1925.

UPSILON

Miami University, Oxford, Ohio, founded May 7, 1926.

PHI

University of New Hampshire, Durham, New Hampshire, founded May 21, 1926.

CHI

Montana State College, Bozeman, Montana, founded February 11, 1927.

PSI

University of Washington, Seattle, Washington, founded April 7, 1928.

OMEGA

University of Oklahoma, Norman, Oklahoma, founded March 24, 1928.

ALPHA ALPHA

University of Southern California, Los Angeles, California, founded March, 1928

ALPHA BETA

Mount Union College, Alliance, Ohio, founded May 17, 1928.

ALPHA EPSILON

University of Pittsburgh, Pittsburgh, Pennsylvania, founded March 23, 1929.

ALPHA ETA

Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma,
founded March 13, 1930.

ALPHA THETA

State College of Washington, Pullman, Washington, founded May, 1930.

ALPHA IOTA

Bucknell University, Lewisburg, Pennsylvania, founded January 9, 1932.

ALPHA KAPPA

Hunter College, New York City, founded January 8, 1932.

ALPHA LAMBDA

University of Utah, Salt Lake City, Utah, founded February 13, 1932.

ALPHA MU

University and State College of Oregon, Eugene-Portland-Corvallis, Oregon,
founded November 18, 1933.

ALPHA NU

University of New Mexico, Albuquerque, New Mexico, founded April 21, 1935.

ALPHA XI

Rhode Island State College, Kingston, Rhode Island, founded May 17, 1935.

ALPHA OMICRON

Marquette University, Milwaukee, Wisconsin, founded June 18, 1938.

ALPHA PI

University of Colorado, Boulder, Colorado, founded May 24, 1941.

ALPHA RHO

University of Arkansas, Fayetteville, Arkansas, founded May 23, 1945.

ALPHA SIGMA

University of Texas, Austin, Texas, founded February 2, 1946.

ALPHA TAU

National University of Mexico, Mexico, D. F. founded April 7, 1947.



Alpha Tau Installed

Mexican University Receives First International Phi Sigma Chapter

A unique event in North American collegiate history took place on 7 April in Mexico's four hundred year old National Palace when for the first time in the nation's history a chapter of a Greek letter fraternity was formally installed. It was the Alpha Tau Chapter of Phi Sigma, the working guild of biological students interested in research.

"Cultural ties between Mexico and the United States have been strengthened with the establishment here of the first chapter of an American educational fraternity formed in Latin America," said "Excelsior," leading Mexico City daily newspaper in its English edition on the following day.

The place where the installation ceremony took place was the Institute of Anthropology in the Ethnological Museum. The charter members were seventeen picked graduate students from the many component schools and institutes of the National Autonomous University of Mexico.

As a preliminary to the main event of the evening, there was a quiet ceremony in which Alpha Sigma Chapter of the University of Texas conferred honorary membership on Dr. Jose Zozaya, Director of the Graduate School of the National University. The formula for this induction was read by Dr. Fred Barkley of the Texas institution's Department of Botany. In the ceremony he was assisted by other officers of Phi Sigma who had come to Mexico to participate in the inauguration of the new chapter.

COUNCIL SECRETARY INSTALLS

The Phi Sigma ritual for the installation was read by Dr. Arthur I. Ortengruber, Secretary of the Phi Sigma Council and head of the Department of Zoology at the University of Oklahoma. Acting as temporary Council President for the occasion, Dr. Ortengruber was assisted by Dr. Anselm M. Keefe, Dean of St. Norbert College and Editor of the *Biologist*, as acting Council Vice-President. Dr. Barkley functioned as Acting Council Secretary. Mr. Erwine Hall Stewart of Mesa, Colorado, Council Treasurer, functioned in his own capacity, as also did Dr. Efrén C. del Pozo, Professor of Physiology at the School of Tropical Diseases, in the capacity of Chapter Sponsor.

In the course of the installation the following were certified and duly inaugurated as the first officers of the new Chapter: Dr. Eusebio Davalos Hurtado as President, Efraín G. Pardo as Vice-President, Johanna Faulhauber as Secretary and Maria Elena Caso Munoz as Treasurer.

The other initiates at the ceremony are: Guillermo Anguiano Landín, Jorge Derbez Muro, Elena Gutierrez Sanchez, Ana Hoffman Mendizabal, Luis Limón Gutierrez, Raul R. Rodriguez, Maria de los Angeles Sandoval, Raquel Tello de la Pena, Julio Ibarra Urrea, Lauro J. Zavala, and Anne Chapman (the only American).

BANQUET AT HOTEL MAJESTIC

Following the installation of Alpha Tau Chapter, the members and their guests adjourned across the Zocalo

from the National Palace to the Majestic Hotel where the traditional installation banquet was held in the roof garden. Dr. Eusebio Davalos Hurtado, the new chapter president, acted as master of ceremonies at this function. Brief speeches were made by Dr. Ortenburger, the installing officer, and by Efraim G. Pardo, the new chapter vice-president. The main address of the evening was given by Dr. Keefe, who took as his subject, "The Padre was a Biologist," an account of his experiences in Australia, Papau, New Guinea and the Philippines as an Army Chaplain with the 135th Medical Regiment.

DIGNITARIES ALSO PRESENT

Among the hitherto unmentioned leaders in Mexican educational and cultural circles who were present at the chapter installation and the banquet were: Dr. Eduardo Marquina, Director of the National Institute of Anthropology and History; Mrs. A. I.

Ortenburger of Omega Chapter of Phi Sigma at the University of Oklahoma; Dr. Pablo Martinez del Rio, Director of the School of Anthropology; Dr. and Mrs. Maximiliano Ruiz Castaneda of the Laboratory of Medical Research at the Mexico General Hospital; Dr. Danil Rubin de la Borbolla, Director of the National Museum of Archaeology, and Mr. Merrill D. Cody, Cultural Attache of the U. S. Embassy.

Other Chapters of Phi Sigma were represented as follows: Lambda Chapter, University of Montana, by Dr. Castaneda, one of its honorary members; and Alpha Sigma Chapter of the University of Texas, not only by one of its honorary members, Dr. Eduardo Aguierre Pequeno, Director of the School of Medicine in the University of Nueva Leon, Monterrey, but also by two alumni members, Asuncion Duplan and Fernando Valdez Morales, and one active member at the present time,



Merrill D. Cody, Cultural Attache at the U. S. Embassy, and Erwine H. Stewart, Treasurer of Phi Sigma at the Alpha Tau Initiation Banquet.

George R. Smith of Onalaska, Texas. Mr. Smith had made the trip to Mexico City as companion to Dr. Barkley, who combined the pleasure of official delegate at the inauguration of Alpha Tau Chapter with the more prosaic but none-the-less scientific project of collecting Mexican flora from the Texas border all the way through to the slopes of Mount Popocatepetl.

DEDICATION OF THE MASSA LABORATORY

On the Tuesday morning following the installation the Council delegation were invited to participate in an impressive ceremony at the Brucellosis Clinic of Mexico's General Hospital, when the clinic and its research laboratories were formally dedicated to the memory of Dr. Salvador Massa. Dr. Massa was a native of Mexico who headed Malta Fever research for the Argentine Government. He recently succumbed to heart failure as the result of overwork while doing some research at the University of Nueva Leon. Surrounded by the entire Staff of the Clinic Dr. Ruiz Castaneda acted as master of ceremonies and introduced the speakers. Dr. Eduardo Aguiere Pequeno of the University of Nueva Leon Medical School gave the opening address. Dr. Enrique Beltran of the School of Tropical Diseases of the University of Mexico responded. Dr. Anselm Keefe also spoke.

FIRST PUBLIC LECTURE

On Tuesday evening, 8 May, Alpha Tau Chapter held its first open meeting, in order to hear a brilliant as well as witty address by Dr. Pablo Martinez del Rio, Director of the National University's School of Anthropology. Choosing as his subject the Pre-Cortesian Man of the Mexican Lakes, Dr. del Rio captivated every one who heard him in his discussion of the recent dis-

coveries of prehistoric remains which antedate most of the human materials anthropologists have thus far had to work on.

Later in the week Dr. and Mrs. Ortenburger, Mr. Stewart, Drs. Barkley and Keefe were formally presented to the Rector of the National University by Dr. Jose Zozaya. Dr. Salvador Zubiran expressed his deep appreciation of the fact that Phi Sigma had become established at the National University and voiced his hope that the intellectual and cultural ties between the United States and Mexico would become more and more closely knit by the scholastic cooperation implied in this organization of a fraternity at the National University.

CONCLUSION

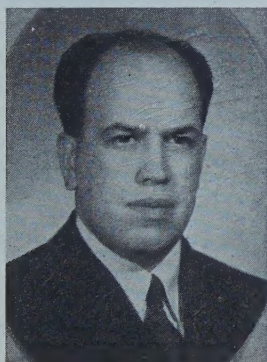
Members of the installation party who went to Mexico from the United States were afforded every opportunity they desired to become better acquainted with the leaders in Mexico's biological fields. One of the most interesting trips was the inspection of the Institute of Tropical Diseases, a remarkable institution which for equipment and housing more than favorably compares with the best the United States has to offer.

It was the unanimous consent of all who attended the installation of Alpha Tau Chapter that in this new venture Phi Sigma has made no mistake, and Alpha Sigma Chapter is to be congratulated on its foresight and on the interest it has shown in getting the Mexican Chapter under way.

To all those who contributed to the foundation of Alpha Tau, to the new Chapter's faculty and student members, the installing party are most grateful.

INICIACION DE ALPHA TAU

El día 7 de abril de 1947, a las 18 horas, se procedió a la iniciación del capítulo Alpha Tau de la U. N. A. M., que forma parte de la fraternidad Phi Sigma, creada para fomentar las investigaciones en el campo de la biología. El acto se verificó en el salón Sahagún de la E. N. A. H., bajo la presidencia de los siguientes representantes del Comité Nacional de los Estados Unidos de Norteamérica: Sr. Arthur I. Ortenburger, Secretario del Consejo de la Sociedad Phi Sigma, y Jefe del Depto. de Zoología de la Universidad de Oklahoma; Sr. Erwine H. Stewart, Tesorero del Consejo de la Sociedad Phi Sigma, Sr. George R. Smith, Presidente del Capítulo Alpha Sigma de la Universidad de Texas; Dr. Fred A. Barkley, Ex-Vice Canciller de la Sociedad Phi Sigma, y Jefe del Herbario de la Universidad de Texas; Dr. Anselm M. Keefe, Editor de la Revista "The Biologist," Organo de la Sociedad Phi Sigma y Decano del St. Norbert College de West de Pere, Wis., y por el Dr. Efrén del Pozo, miembro honorario del capítulo de la Universidad de Texas y patrocinador del nuevo capítulo Alpha Tau de la U. N. A. M., el primero constituido fuera de los límites de los Estados Unidos.



Dr. Efrén C. del Pozo,
Sponsor of Alpha Tau,
Honorary Member of
Alpha Sigma



Dr. Jose Zozaya,
Director of the Gradu-
ate School, Honorary
Member of Alpha
Sigma Chapter

Además concurren a este acto las siguientes personas, miembros de diversos capítulos de la Phi Sigma en los Estados Unidos: Sra. Ortenburger, Dr. M. Ruíz Castañeda, Dr. Eduardo Aguirre Pequeño, Srita. Asunción Duplan, Dra. Luisa O. Ruíz Castañeda, Dr. Fernando Valdes-Morales, Prof. Bernardo Villa y Prof. Manuel Maldonado Koerdell.

Como invitados especiales estuvieron presentes el Dr. J. Zozaya, Director de la Escuela de Graduados y representante del Dr. Salvador Zubirán, Rector de la U. N. A. M.; el Sr. Morril Cody, Agregado Cultural de la Embajada de los Estados Unidos, y el Dr. Daniel F. Rubín de la Borbolla, Director del Museo Nacional de Antropología de México.

Las siguientes personas habían hecho la solicitud para formar parte del nuevo capítulo Alpha Tau de la U. N. A. M.: Sr. Guillermo Anguiano Landín,

Srita. María Elena Caso Muñoz, Srita. Anne Chapman, Dr. Eusebio Dávalos Hurtado, Sr. Jorge Derbez Muro, Sra. Johanna Faulhaber, Srita. Elena Gutiérrez Sánchez, Srita. Ana Hoffmann Mendizabal, Sr. Luis Limón Gutiérrez, Sr. Efraín G. Pardo, Sr. Raúl R. Rodríguez Ramos, Srita. María de los Angeles Sandoval C., Srita. Raquel Tello de la Peña, Sr. Julio Ibarra Urrea y Sr. Lauro J. Zavala, quienes fueron nombrados miembros del capítulo, después de haberse declarado conformes a cumplir con los fines y los reglamentos de la fraternidad Phi Sigma. En seguida se les entregó a cada uno de ellos el diploma y la llave de la fraternidad por medio del Secretario del Consejo de la Sociedad Phi Sigma, Sr. Arthur I. Ortenburger.

Una vez que el capítulo Alpha Tau quedó establecido, se procedió a la toma de posesión del Comité Local, electo en una sesión anterior. Dicho Comité quedó integrado del modo siguiente: Presidente, Dr. Eusebio Dávalos Hurtado; Vice Presidente, Sr. Efraín G. Pardo; Tesorera, Srita. María Elena Caso Muñoz; Secretaria, Sra. Johanna Faulhaber, los cuales prometieron cumplir con sus funciones según el modo establecido por los estatutos.



Eusebio Dávalos Hurtado,
President of Alpha Tau



Efraín G. Pardo, Vice-
President of Alpha Tau

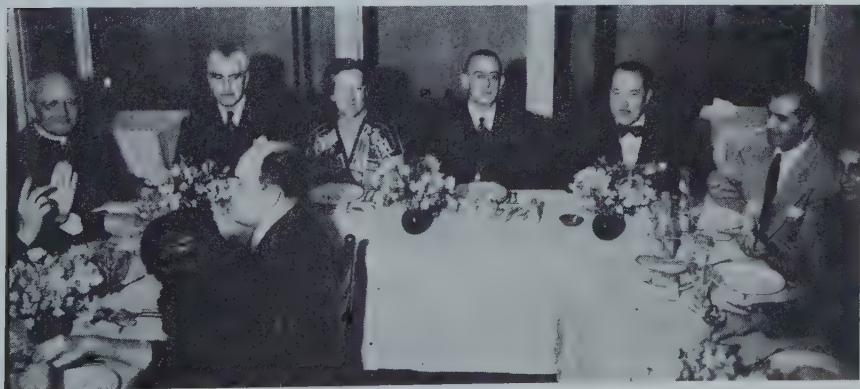
El acto terminó con la lectura de las siguientes felicitaciones recibidas a causa de la formación del capítulo Alpha Tau:

- Alpha Xi Chapter of Rhode Island State College. Kingston, R. I.
- Beta Chapter of the University of Michigan. Ann Arbor, Michigan.
- Omega Chapter at the University of Oklahoma. Norman, Oklahoma.
- Phi Chapter at the University of New Hampshire. Durham, New Hampshire.
- Alpha Nu Chapter at the University of New Mexico. Albuquerque, New Mexico.
- Alpha Kappa Chapter at the Hunter College. New York City.
- Dr. Leon J. Cole of the University of Wisconsin.
- Alpha Pi Chapter of the University of Colorado. Boulder, Colorado.
- Alexander G. Ruthven, President of the University of Michigan. Ann Arbor, Michigan.
- Alpha Lambda Chapter of the University of Utah. Salt Lake City, Utah.
- Nu Chapter of the Washington and Jefferson College. Washington, Penn.

Sigma Chapter of the University of Florida. Gainesville, Florida.
 Rho Chapter of the University of Illinois. Urbana, Illinois.
 G. L. Cross, President of the University of Oklahoma. Norman, Oklahoma.
 Alpha Sigma Chapter of the University of Texas. Austin, Texas.
 Upsilon Chapter of Oxford, Ohio.
 Alpha Nu Chapter of the Oregon State College. Corvallis, Oregon.
 Paul A. Warren, Chancellor of the Tufts College of Massachusetts.
 Theophilus S. Painter, President of the University of Texas.
 Ignacio Marquina, Director del I. N. A. H. México, D. F.
 D. F. Rubín de la Borbolla, Director del Museo Nacional. México, D. F.
 Pablo Martínez del Río, Director de la E. N. A. H. México, D. F.

A las 20 horas todos los miembros de la Sociedad Phi Sigma y los invitados de honor se reunieron en el Restaurant Magestic para la primera cena ofrecida por el nuevo capítulo Alpha Tau a sus compañeros americanos.

Concurrieron como invitados de honor el Dr. José Zozaya, Director de la Escuela de Graduados y representante del Dr. Salvador Zubirán, Rector de la U. N. A. M.; el Sr. Morril Cody, Agregado cultural de la Embajada de los E. E. U. U.; Dr. Roberto Llamas, Director del Instituto de Biología; el Arq. Ignacio Marquina, Director del Instituto Nacional de Antropología e Historia; Dr. Pablo Martínez del Río, Director de la E. N. A. H. y el Dr. Efrén del Pozo, Miembro patrocinador del capítulo Alpha Tau; el Dr. Daniel F. Rubín de la Borbolla, Director del Museo Nacional de México. Asistieron también los siguientes miembros de diversos capítulos de la fraternidad Phi Sigma en los Estados Unidos: Sr. Arthur I. Ortenburger y Sra., Secretario del Consejo de la Sociedad Phi Sigma; M. Erwine H. Stewart, Tesorero del Consejo de la Sociedad Phi Sigma; Dr. Fred A. Barkley, Vice Canciller de la Sociedad Phi Sigma; M. George R. Smith, Presidente del capítulo Alpha Tau de la Universidad de Texas; Dr. Anselm M. Keefe, Editor de la Revista "The Biologist," Organo de la Sociedad Phi Sigma; Dr. M. Ruíz Castañeda; Dr. Eduardo Aguirre Pequeño; Srita. Asunción Duplan; Dra. Luisa O. Ruíz Castañeda; Dr. Fernando Valdes-



Alpha Tau Installation Banquet Speakers' Table—Left to Right: Drs. A. M. Keefe, E. Marquina, Mrs. and Dr. A. I. Ortenburger, Drs. J. Zozaya, and D. R. de la Borbolla, Sra. Dra. Castaneda. Foreground: Srita. M. E. Caso Munoz, and Dr. E. del Pozo.



Installation Banquet, Alpha Tau Chapter—Roof Garden, Majestic Hotel, Mexico D. F.

Morales; Prof. Bernardo Villa; Prof. Manuel Maldonado K. Del Capítulo Alpha Tau de la U. N. A. M. estuvieron presentes los siguientes miembros: Sr. Guillermo Anguiano Landín, Srita. María Elena Caso Muñoz, Srita. Anne Chapman, Dr. Eusebio Dávalos Hurtado, Sr. Jorge Derbez Muro, Sra. Johanna Faulhaber, Srita. Elena Gutiérrez Sánchez, Srita. Ana Hoffmann Mendizabal, Sr. Luis Limón Gutiérrez, Sr. Efraín G. Pardo, Sr. Raúl R. Rodríguez Ramos, Srita. Ma. de los Angeles Sandoval C., Srita. Raquel Tello de la Peña, Sr. Julio Ibarra Urrea, Sr. Lauro J. Zavala.

Hicieron uso de la palabra el Sr. Arthur I. Ortenburger en nombre del Consejo de la Sociedad Phi Sigma; el Dr. José Zozaya en nombre del Rector de la U. N. A. M.; el Sr. George R. Smith, en nombre del Capítulo Alpha Sigma de la Universidad de Texas; el Sr. Efraín G. Pardo en nombre del capítulo Alpha Tau de la U. N. A. M. Finalmente el Dr. Anselm M. Keefe dió un relato de las experiencias que tuvo como biólogo durante la última guerra mundial, acompañando a las fuerzas militares americanas en el Pacífico.

La comida terminó a las 23 horas, después de que el presidente del capítulo Alpha Tau, el Dr. Eusebio Dávalos H. invitó a todos los presentes para que concurrieran a la primera conferencia organizada para el día 8 de abril, a las 18 horas, en el salón Sahagún de la E. N. A. H.

El día 8 de abril de 1947 se llevó a cabo la primera conferencia organizada por el capítulo Alpha Tau de la U. N. A. M., que se verificó a las 18 horas en el salón Sahagún de la E. N. A. H. de México.

El conferencista, Dr. Pablo Martínez del Río, director de la E. N. A. H. disertó sobre el tema "La Antropología en México," tratando de modo bien documentado y ameno la evolución de dicha ciencia en el campo mexicano. Después de hacer resaltar la importancia de los relatos conservados acerca de las culturas prehispánicas en los documentos recopilados por los primeros misioneros que vinieron a México, señaló la aparición de muchos conceptos erróneos

durante los siglos subsecuentes, cuando el historiador se basaba más en su propia imaginación que en los hechos concretos. En seguida se refirió a los trabajos hechos ya a base de investigaciones científicas durante los últimos 25 años. Hizo notar que dichos estudios comprobaron en gran parte las primeras descripciones de los misioneros y nos permiten ya hablar con cierta seguridad de algunas secuencias de las culturas prehispánicas. También hizo resaltar que los fines de la antropología no terminan con el análisis de estas culturas antiguas, sino que ella interviene también en la resolución de los problemas de aculturación, que se presentan todavía hoy en día cuando se trata de incorporar los diversos grupos indígenas a la Nación Mexicana. Por fin remarcó la importancia del reciente encuentro del hombre de Tepexpan, al cual se le atribuye una edad de 12.000 años, observando al respecto la probable necesidad de adelantar ésta a unos 7.000 años, haciendo al mismo tiempo retroceder la edad de la primera cultura del Valle de México, o sea del arcaico, para llenar así el hiatus existente entre ambos.

Johanna Faulhaber.
La Secretaria

The Padre Was a Biologist

By ANSELM M. KEEFE, Ph.D.

Address presented at the Hotel Majestic, Mexico City, 7 April 1947, on the occasion of the installation of Alpha Tau Chapter of Phi Sigma.

On rare occasions it happens that Fortune smiles on a biologist. When that biologist happens to be a priest-professor who is also a College dean, well,—as the late Damon Runyon, the humorist, used to say, "What more could be fairer?"

Called to active military duty as a Chaplain by orders received on Christmas day 1940, the Padre arrived on his motorcycle at the future training area of his unit, the 135th Medical Regiment at Camp Shelby, near Hattiesburg, Mississippi, early in January. There wasn't too much biologizing in the early days of '41, but the impending maneuvers that were to begin in early June and last until early December through the South from southwestern Louisiana to South Carolina, postulated first-hand acquaintance with southern flora and,—mirabile dictu!—southern snakes! However, being just a "no'thern damyankee" from Wisconsin, as were most of the members of his regiment at the time, the Padre prepared a talk, on the snakes of the south, for them, and illustrated it by collecting and preparing an exhibit of the venomous ones which could be more dangerous to men from a state where rattlesnakes and moccasins are rare, and coral snakes are unknown.¹

The collection and the Padre made the rounds of Camp Shelby. A battalion of Negro engineers was in training there at the time. The talk on venomous snakes, illustrated by blackboard sketches, the preserved specimens, and a live "blow-snake" which was put through his tricks, caused something of a sensation. Maneuvers all through the Summer of 1941 gave the Padre a golden opportunity to collect many southern plants from Mississippi and Louisiana for his own and other herbaria.

Then came December seventh and the treacherous dawn at Pearl Harbor. The Padre's Medical Unit, after giving up nearly a third of its home-state personnel, was rebuilt by additions of medical troops from Indiana and Kentucky's 38th and later from Connecticut's 43rd Divisions. By early March the 135th was out of New York harbor in the Atlantic Ocean beginning to feel the first touch of mal-de-mer off Cape Hatteras. It was outward bound for an unknown destination. The convoy in which it travelled was very small, but heavily guarded. Included in it was a great aircraft carrier, "The Ship to Remember," as it has been called,—the flattop "Hornet," enroute to a rendezvous with destiny, Doolittle and "Destination Tokyo." Dodging the Nazi submarine wolf-pack, but crossing many a tell-tale oil slick, the convoy raced south down the Atlantic and west through Mona Passage, across the Carribean Sea to get its first close-up view of the tropical verdure its passen-

¹The snake collection included the following forms: Diamond rattlers, *Crotalus adamanteus*; the pigmy rattler, *Sistrurus miliarius*; Cotton-mouth moccasins, *Ankistrodon piscivorus*; Harlequin corals, *Elaps fulvius*. Good specimens were also secured of the Scarlet king snake, *Lampropeltis doliaus cocinuius*, which closely mimics the corals, as well as of the southern green snake, *Ophedrys aestivus*, and that reptilian clown, the southern hognoed "puff adder" or "blow snake," *Heterodon simus*.

gers were destined to see so long during the next three and one half years,—this first time under the clustering barrage balloons which guarded each of the locks of the Panama Canal.*

The first and the only island to be visited in the Pacific was Bora Bora, one of the Leeward Islands in the Friendly Group, over which flew the cross of Lorraine of Free France. Bora Bora was supposed to be the ideal tropical island and was chosen by a German film company which produced the well-known pre-war motion picture "Tabu." It was here among the natives that the regimental medical officers saw their first spectacular cases of those human monstrosities caused by elephantiasis,—filariasis due to *Wuchereria bancrofti*.

By this time there was less doubt of the 135th Medical Regiment's destina-

tion. In the days that followed there was none at all, when from the ship's strong box there were issued complete map collections of the whole of Australia. How little was known about that great land even by our military cartographers at that early date soon became plain. A large number of those maps for military strategic use were black and white reproductions of ordinary automobile road guides, issued by the various Australian petrol syndicates. Nearly all of the maps contained great areas of unspotted paper, evidence of unexplored or unmapped, certainly of practically uninhabited, regions. This was not hard to understand when it was realized that in 1940 there were only 7,500,000 people in Australia which, compared to 13,000,000 cattle and 119,000,000 sheep, made it almost a lonesome land.

How true this was, became increasingly evident a month or so after the regiment made its first land-sighting at Moreton Island, and its subsequent debarkation at Brisbane, Queensland. Incidentally, as the convoy slowly moved up the lower reaches of the Brisbane River, it caught up with innumerable head-sized specimens of some sort of scyphozoan (probably a *Rhizostoma* mean), which literally filled the channel from bank to bank,—even an invertebrate welcome!

The Regiment's acquaintance with the less inhabited portions of Australia was to come in less than a month. The Jap was on his way up the Kokoda Trail in New Guinea, so some of the Padre's companies sailed almost immediately for Port Moresby, to be the first and for several months the only American medical troops in Papuan New Guinea. Others went to the Atherton Tableland in Northern Queensland. It was the Padre's heaven-sent fortune to accompany a small convoy

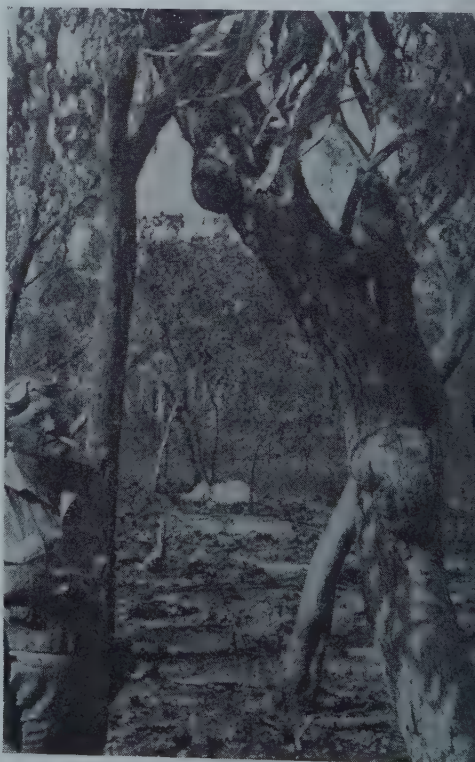


One of the many 15-foot ant hills in the scrub near Adelaide River, Northern Territory, Australia, 1942.

of oversized trucks overland from Brisbane west to Morven, thence northwest to the American-managed mines at Mt. Isa, then west again out of Queensland at Camooweal to the defense Highway and thence north to the topmost tip of Australia, Darwin, the almost utterly destroyed capitol of the Northern Territory. It was here that the Japanese air force had almost undisputed sway over the skies until shortly before the Padre's units joined the Australo-American forces there.

The story of that 1,800 mile ride in a jeep over the "bush" trails of the uncharted "outback" would take too long in the telling. It is a kaleidoscope in the Padre's memory of tremendous distances of sundrenched plains,—weird jumbles of the oldest rock formations known on earth,—days of travel with never a river, even a half dried "billabong,"—windmills dotting the horizon in the stationlands,—droves of sheep, cattle and horses, being herded south away from the northern invasion that was thought impending and momentarily expected,—changing flora and plant associations that would drive an ecologist mad,—kangaroo, wallaby and wallaroo, members of the family *Macropodinae* (of which there are eleven genera in Australia) growing more and more plentiful the farther west one went,²—chance flocks of emu trying to dodge through the station fencing,—an occasional solitary dingo, *Canis dingo*,—small horned lizards much like our own *Phrynosoma* but brilliantly colored in chocolate and ivory and with curious dorsal protuberances on their necks,—blue-tongued plated lizards large as Axolotls or Gila monsters, and frilled iguanas, some of which measured between four and five

feet in length and, when excited, travelled erect on their hind legs like prehistoric tyrannosaurians. Most memorable of all the Australian fauna were the birds,—which in profusion and variety make that land "down under" an ornithologist's paradise. From the ostrich-sized emu, *Dromaius*, down to the tiny fairy wrens, *Malurus*, and the diminutive honey eaters, *Meliphaga*, is a tremendous range. Between the two, however, there are such fantastic forms as the stately, red-headed, blue brolga, *Meglorinus*, or "travellers' companion,"—the fork-tailed kite, *Milvus migrans*, an eagle-like bird which performs the scavenging functions of our American



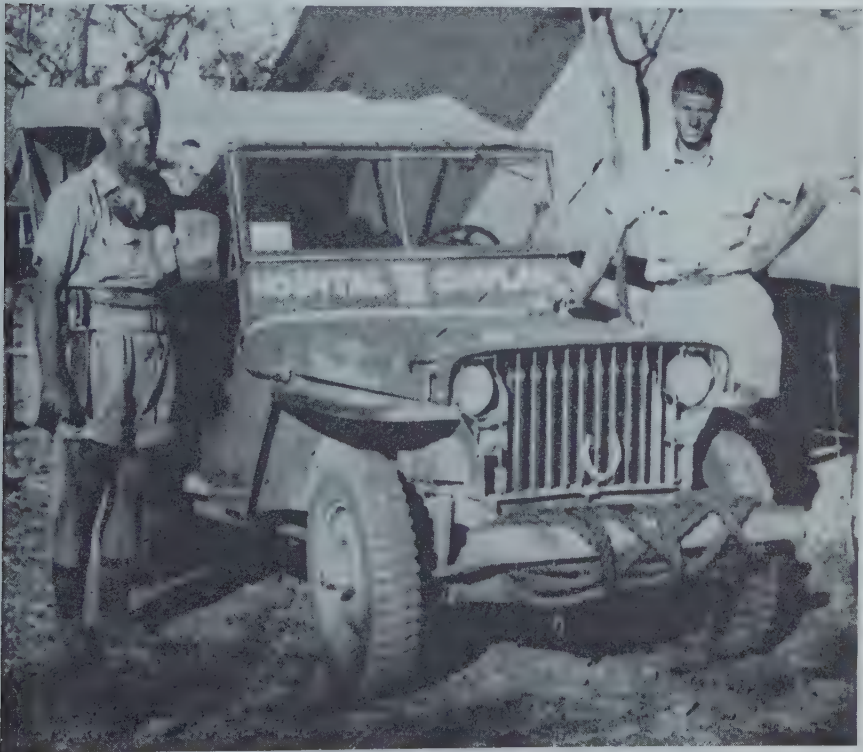
A frilled Iguana "freezes" when cornered on an Australian gum tree branch in the scrub near Katherine River, Northern Territory, Australia, 1942.

²How the Padre and his clerk-driver "clocked" a big male "roo" with the jeep speedometer on this trip is a story which made the rounds of the popular scientific columns in the U.S.A. in the Fall of 1945.

buzzards,—the toothsome bustard, *Eupodotus*, or bush turkey, whose breast meat is dark and whose drumsticks are white,—the black-and-white “Willie Wagtails,” *Rhipidura*, and magpies, *Gymnoclina*,—and always those noisy members of the kingfisher family, the Kookaburras, *Dacelo gigas*, or laughing jackasses. Nor can the Padre ever forget the teeming numbers and varieties of the parrot family,—the true parrots, the paroquets and the cockatoos. Among these, the most common were the clowns of Australia's avian population, the dove-gray and rose breasted gallahs, *Kakatoe rosicapilla*, which take precedence not alone by

their looks but by their deeds. Tamed, they shame the devil for incredible impishness.

In the dry and dusty regions south from Darwin into the “outback” nearly 500 miles towards the central part of Australia there were few snakes. The one most frequently encountered was the very venomous “Death Adder,” *Acanthophis antarcticus*. This short and stumpy reptile has a curious waxy-yellow spine on the tip of its short tail. It is said to bury itself in a circle in the sand with its head not far from the tip of the tail. As an unwary bird approaches the spine is wriggled to and fro much like a small worm. The curi-



The Padre, Cpl. Charles Kudija and the jeep in which they paced the kangaroo on their return from one of their dusty weekly trips between Darwin and Birdum, N. T. Australia, 1942.

osity of the bird is generally fatal.

The Padre's weekly travels between Darwin and Daly Waters brought him into only a few contacts with the Australian aboriginals; most of them had gone on a big "walkabout" into the wilds of Arnhem Land and away from any possible routes the Japanese might elect to use if they invaded.

The second phase of the Padre's wanderings came early in 1943 when the headquarters unit and several more companies were transferred to Port Moresby. Following the North Australia experience there was a few weeks interlude of rest and reorganization in the pastoral countryside thirty miles south of Brisbane at Camp Cable near Tambourine Mountain. Here there were thickets of blue-gum, *Eucalyptus tereticornis*, in which the Koala, *Phascolarctos cinereus*, were common. Here too, and forty miles farther south, were mountains at whose feet descendants of American or British-bred cattle, —Guernsies, Holsteins and Jerseys, grazed amid rustic scenes of pastoral and truck farming. But, climbing the mountains at elevations above a thousand feet, the change of scene was so unexpected as to be doubly impressive. The mountain crests were clothed in rank verdure, enormous trees with buttressed roots, tree ferns, epiphytes of all kinds, lianas, especially the strangler fig, and all the other panoply of strictly tropical rainforest. Here the Padre saw one live specimen of the rare Regent Bower Bird, *Sericulus Chrysocephalus*, as well as the cherry-bellied black snake, *Pseudechis porphyriacus*, unquestionably the most dangerous of all Australian reptiles and for which there is no antivenom. Between the tree trunks of that mountain-top jungle the Padre looked down on Brisbane, 65 miles away, baking in a November's summer sun, and shiv-

ered as the mists began to descend from higher peaks filling the rain-forest where he stood with damp and an unnatural gloom.

Arriving in Papua early in January 1943 the Padre very soon got to see the lowland tropical jungle at first hand. However, the stretch of New Guinea's southern coastline near Port Moresby is definitely more Australian than it is Melanesian,—in accordance with the theory of "Wallace's Line." Commonest among the upland trees were the already familiar Australian eucalypts,—and wallabys were present if not plentiful. Although some iguana were noted, no Australian snakes were seen. The bird life, however, had much in common with the Australian mainland. This was expected, since New Guinea is to the migrant Australian birds in the winter months from May to September what the West Indies and the Carribean coasts of South America are to many of our American migratory birds. The Padre's outfit will not soon forget one early morning experience with channel-billed Cuckoo, *Scythrops novae-hollandiae*, which has the loudest, most awful, screaming call of all known birds.

Aside from these chance observations, the Padre's biological training was here put to work in a much more practical fashion. The 135th, which was earning a reputation for itself in cognate lines to the purely medical, was forced by circumstances to construct its own semi-permanent 650 bed hospital from the ground up. This, after the regiment's exploits in building hospitals out of almost nothing in North Australia, only confirmed it in the eyes of the Australian "Digger's" as "The Medical Engineers." In the early phases of this construction work the Padre supervised the general landscaping and succeeded in transplanting

some five foot coconut trees, as well as a number of frangipanni, some sort of a maguey or Spanish Bayonet with fifteen-foot stalks, and variegated crotons from the grounds of an abandoned native prison. This gardening business did not go on for long. At the far side of Port Moresby, some eight or ten miles east, there was an unexpected and mysterious outbreak of malaria which focussed the attention of the whole combined U. S. and Australian Command on this problem. The weather had been terrifically dry and dusty for nearly a year—(Eddie Rickenbacker's comments on his trip to Moresby in December 1942 will corroborate this). Then suddenly came this flare up. Lieutenant Colonel Willard V. King of the U. S. Sanitary Corps found the cause. Along the southeast shore of the Moresby area the Fall equinoctial tides of April had filled some far inland pools. In this brackish water *Anopheles subpictus*, *grassi*, a known malaria vector and vicious biter, was breeding freely. Other local active vectors were chiefly *A. punctulatus*

Dönitz and its more vigorous variety *A. p. moluccensis*, *Sw.*

Attention being thus suddenly focussed on the malaria problem, there was a rapid tightening up on all control regulations by the combined staffs of allied army and navy forces. In the regimental area the Padre was asked by his Commanding Officer to accept the responsibility for malaria control in addition to his duties as Chaplain.³ In order to comply with military regulations, since Chaplains in the U. S. Army have no right to command, a ranking medical officer, Lt. Col. Reinhard Becker, was placed in general charge, but the details were left in the Padre's hands.

The Padre had been trained as a botanist, in fact and to be more specific, as a plant cytologist. However, his undergraduate work had included all the subjects customary in preparation for

³The Padre here acknowledges his deep appreciation for the cooperation of his Commanding Officers, Cols. W. J. Bleakwenn and Marc J. Masser, Jr., both members of the University of Wisconsin Medical School Staff. Their patience with the Padre's extra-official biologizing was a constant encouragement.



Enlisted men of the stream-clearing detail with their Chaplain, Cape Cretin area, New Guinea, 1944.

medical studies. So he had recourse to his friends in the United States for the latest anopheline literature and materials.⁴

The program outlined for the Apoka Valley area, where the 135th installations were sprawled from hill to hill, was fairly complete. It envisioned four phases:

1. Grass removal (with native labor or by burning) and construction of water control dams, and straightening of watercourses (also with native labor).

2. A resurvey of the entire valley for Anopheline breeding places, and for the roosting places of wind-borne migrants.
3. A strong educational campaign as to personal prophylaxis against malaria.
4. Testing suspected Anophelines

⁴Among those to whom he must acknowledge his indebtedness are Dr. Frank Thone of the staff of *Science Service*, Dr. David Causey of the University of Arkansas, and above all, to Dr. Arthur I. Ortenburger of the University of Oklahoma. One of his own medical officers, Dr. Frederick Hidde of Sheboygan, Wisconsin, secured for him a microfilm of Swellengrebel and Rodenwaldt's invaluable monograph, "Die Anophelen von Nederlandisch-Ostindien."



Apoka Valley Hospital from the crest of Dogu Mountain, Fairfax Harbour, Port Moresby, in the distance. Except for roads and water reservoirs, the entire installation was built by men of the 135th Med. Regt. from lumber sawed in their own mill out of logs cut by themselves. This represents only 1/3 of the area covered by regimental malaria control work, 1943.

which were common but unknown as vectors.

This program was officially approved and got underway immediately. Twenty-five to fifty natives ("fuzzy-wuzzies") were daily placed at the Padre's disposal by ANGAU (Australian Native Government and Utility). Under the direction of the non-commissioned members of the regimental detail, to whose intelligence and interest most of the credit for the success of the program was due, these natives armed with machetes cleared off the tall grass and light underbrush in the entire area surrounding the hospital proper. This and the surrounding hillsides for a distance of almost two miles up and down the valley was burned off. The Padre's smoke hung low in the Valley for days. All native huts in the valley (abandoned under military directives for segregation of natives and white) were also incinerated. A small 55-gallon portable bitumen tank-and-pressure pump unit of Australian manufacture was used to spray refractory spots with crude oil in order to promote the general arson campaign. This unit mounted on a light truck proved invaluable as it had a long extension nose and nozzle which was ideal for spraying oil on roadside ditches which the winter rains kept fairly full.

The natural drainage of the valley, and the artificial drainage of the hospital area was straightened out, two concrete-and-stone dams were built with native labor to impound the waste water and at all sluggish spots on the water courses drip cans of crude oil were installed.

The survey of the hospital's valley brought one not unsuspected cause of possible trouble to light. About a half mile up the wilder part of the valley was a dried-up creek with a coarse gravel bed. Following it to its source

in the hills west of the valley located at least three separate stretches of Anopheline-inhabited *flowing water* under heavy jungled banks,—a good example of the "intermittent streams" of the ecologists!

The same stream after passing through the hospital area where it received the combined drainage from the hospital and the regimental area, flowed less than a mile before it again disappeared. A few hundred yards farther on it was later discovered flowing slowly through a large savannah of some kind of a tall calamus or reed. When these were destroyed by fire, the stream disappeared, but whether by evaporation or not would be hard to say.

A series of elementary lectures was prepared and presented for each of the regimental companies and from time to time for the ambulant patients of the rapidly filling hospital. These were illustrated by adapting the motion picture machine so that glycerine-mounted slides of culicine and anopheline heads and mouthparts could be projected at least in silhouette. The best part of the show was the startling projection of living culicine and anopheline larvae by using improvised water cell-slides. The sight of screen-size larvae wriggling by was always applauded. In addition to these efforts, strong measures were adopted to insure the use, not only of "612," dimethyl thallate's predecessor, but also the wearing of long trousers with jungle boots or leggings and sleeves buttoned down by all personnel not under their mosquito nets, from sundown to sunrise. The players in the Regimental Band had built a large open air theater which was more or less regional in its patronage, and drew crowds well over 2000 on clear nights when there was no bombing by the Nipponese. These

crowds gave the Medical Military Policemen a fine chance to do some powerful indoctrination regarding malaria prevention on the Australian troops, and the American Seebes, who came to the regimental shows. These activities were also seconded by warnings at every movie broadcast over the regimental public address system.

Every possible means was employed to focus attention on the importance of malaria prevention. The light truck used in transporting antimalarial detail personnel and materials from one anopheline infested spot to another was decorated with warning signs and cartoons. A mimeographed diagrammatic sheet was prepared to indoctrinate all military personnel as to the difference between anopheles and the other types of mosquitoes, both as to adult appearance and behavior, as well as to larval habit. Over 4000 of these sheets were distributed not only to personnel of the 135th Medical

Regiment, but to all surrounding units which asked for it.

Meanwhile the Padre as regimental representative had been accepted as a member and attended the regular bi-weekly meetings of the Allied Malaria Control Council, where he had a chance to meet and hear some of the outstanding Australian and American malarialogists stationed near, or passing through, Port Moresby. Perhaps the most valuable contact the Padre made was with the Colonel Willard V. King, previously mentioned, whose taxonomic knowledge of the mosquito in all the United States and particularly its tropical possessions, put his advice in the highest scientific rank. Malarialogists with whom the Padre got to be on terms of closest cooperation were Lt. Col. Gottlieb L. Orth, M. C.; Major F. J. Dy (a Filipino Professor in the U. S. Army); Captain Edward S. Ross; Captain William R. Horsfall, SnC, now at the University of Illinois; Captain C. O. Mohr, SnC; Captain Karl Krombein and others.

One of the most consulted references in the Padre's anopheline studies was an official republication by the Australian Army of the Mackeras manuscript: "Notes on Mosquito-Borne Diseases in Australia." Among the Australian Malarialogists with whom the Padre had contacts there was a feeling that Mackeras was not altogether correct in his assumption that the famous civilian malaria outbreak of 1942 in Northern Queensland was due largely to *Anopheles punctulatus* var. *Moluccenses* Sw. They felt that the *Anopheles annulipes*, Walk, indigenous to Australian and Southern New Guinea might have had a part in the outbreak.

Now it happened that by far the commonest Anopheline in the hospital area was *Annulipes*. Under the advice of Dr. Gottlieb Orth, Colonel of



Capt. Wm. Horsfall, Sn.C. and Chap. Keefe at 17th Malaria Survey Hq., Ahoima, Milne Bay, New Guinea, 1943.



Completed drainage trench system, 135th Medical Regiment area, Ahoima, Milne Bay, New Guinea, 1943.

the Army Medical Corps it was therefore decided that an experiment along these lines was altogether in order. Under the medical supervision of Dr. Robert Haukohl, now of Marquette University Medical School, patients with active plasmodial infections (with their consent) had different sterile specimens applied to them. After several weeks of trial the experiment was discontinued. The New Guinea form of *Annulipes* definitely will not accept human blood meals.

Early in October 1943 the 135th was on the move again and set up its temporary headquarters on the southeasternmost tip of New Guinea at Ahoima, Milne Bay. Here the Padre had less malariology to work on. However, the old taxonomic urge of teaching days was on him and, once the new area was drained and oiled, he devoted his spare time in consultation with Captain Horsfall (formerly of the Uni-

versity of Arkansas) to the collection and rearing of anopheline and other mosquito larvae.

Among the specimens collected at the upper end of the bay was a complete series of larvae, pupae and adults which the Padre was unable to identify. The specimens were forwarded to Dr. King, with unexpected results. In the 15 September 1946 issue of the *Journal of Washington, D. C. Academy of Sciences* there was an article by King and Hoogstrall in which a new species of *Aedes* (Finlaya) was named for its collector.

Under the stimulus of a newly received War Department directive, No. 213, the Padre also extended his collecting efforts to other specimens. This military publication requested that zoological specimens collected in foreign lands should be forwarded to the Army Medical Museum. The Army Museum, following its general policy, kept such preserved material as it needed or could use, and sent the rest to the National Museum in Washing-



Chaplain Keefe dipping for anophelines in jungle stream near Cape Cretin, New Guinea, 1944.

ton, for identification and as permanent additions to the National collections.

This set off a series of six shipments that were spread over the period from 12 January to 28 November 1944, and comprised some twenty jars of mixed specimens. Among these were five snakes, two of which were boas, *Engyurus carinatus*, one *Boiga irregularis*, one worm snake, *Typhlops erycinus*, and one *Liasis albertisi*. Among other specimens there were some geckoes, *Lepidodactylus guppyi*, and two new types of *Leiolopisma* which have since been reported to have different toe structures from any thus far recorded. It is quite impossible to know actually how many smaller insects were sent since collecting was done pretty much on a bulk scale. This is how: Wide mouthed jars, such as the Army uses for collecting urine specimens, were partially filled with the Padre's own preserving fluid and left standing under the 25 watt electric bulb which hung over the Chaplain's desk. The Padre used to retire at night in the sure knowledge that the regimental electrician would pull the switch which darkened all the area lights, either at the usual time for "lights out" or sooner, if the airborne emissaries of Greater East Asian Japanese culture should make their not infrequent appearance. The preserving fluid used in the jars contained, among other ingredients, ethyl alcohol and acetic acid which gradually evolve the familiar sweet smelling odor of ethyl acetate.⁵ This seems to have a fatal attraction for many species of night flying insects. Attracted by the light, they danced around in great swarms until,

intoxicated by the fumes from the jars, or desirous of immolating themselves on the altar of Science, they took the fatal plunge. It was all very simple and easy for the Padre. His formula worked while he slept,—just like Cascarets! At any rate, the National Museum in Washington up to now has identified 179 more specimens from the Milne Bay and Finnschafen areas in New Guinea.

The stay of regimental headquarters in Ahoima lasted only from early October 1943 until mid-January 1944. Before the unit left, however, news had arrived that troops farther north along the eastern shores of New Guinea were succumbing to typhus, especially to some not too-well-known forms, thought to have been imported along with the other uncleanness of the Japanese troops. When the Padre's associate Chaplain died of this infection, the Commanding Officer authorized his Padre-Professor to contact the Royal Australian Air Force Medical Staff at Milne Bay and to secure all the available information for dissemination among the whole U. S. Medical Command. This was done and a mimeographed folder brought up to date with all the added experiences of the Australians was made available to all the 135th Medical Regiment personnel wherever they were on duty throughout the Southwest Pacific.

Early in January 1944 the Regiment moved still farther north to Finnschafen, only recently taken from the Japs. Later the Regiment was quartered twenty miles farther south in a bull-dozed area, which was formerly a fox-hole littered jungle, about half way between Langemak Bay and Cape Cretin, on the edge of a dense sago and nipo-palm swamp, beyond which rose heavily forested slopes from which ran two small mountain streams.

⁵This formula was published in "Science," Volume 64, No. 1657, 1 October 1926, and has been republished in several manuals since. It consists of: 90 cc Ethyl Alcohol (50%), 5 cc Formalin (commercial), 2.5 cc Glycerine, 2.5 cc Glacial Acetic Acid.

This new location, where every spot of casual water was promptly populated with both forms of *A. punctulatus*, called for a most energetic resumption of all activities and the use of knowledge acquired and skills developed in Port Moresby and Milne Bay. At the latter station the Padre had adopted a rain gauge some previous unit had set up in the regimental area. Milne Bay is supposed to be one of the rainiest spots in New Guinea.⁶ Either the 135th hit Cape Cretin in a particularly rainy season, or no one had thus far troubled to record the rainfall for the Cape region.

The Cape Cretin area also produced some interesting experiences in native gardening, in seed collecting for the U. S. Department of Agriculture, in the discovery on the banks of one of the jungle streams draining a nipa swamp of a delicate tropical *Selaginella*, and in the collection off the tip of the Cape of some fine specimens of only partially submerged *Sargassum*. One of these has since been identified by Dr. W. R. Taylor of the University of Michigan and the Marine Biological Laboratory as *S. duplicatum* Ag. The other has not yet been determined. Really, the greater part of the collecting



Deepening natural drainage system, 135th Med. Regt. area, Cape Cretin, New Guinea, 1944.



Enlisted men of the 135th Med. Regt. measuring anesthetized 11½-foot "Carpet Snake" found under hood of 6x6 truck, Cape Cretin, New Guinea, 1944.

⁶Port Moresby averages 39 inches, while Milne Bay averages around 112 inches a year. However, when the headquarters were set up near Cape Cretin and daily rainfall was recorded, May produced 27½ inches, June 15 inches, July 21 inches, and August 20 inches, a total of 83 inches in four months.

specimens for the Army Medical Museum previously mentioned, was done here. One specimen never sent, because of its size, was a Boa Constrictor, or as the Australians call it, the carpet snake, which was 138 inches long.

While still back at Port Moresby in the Summer of 1943 the Padre had noticed an article in "Science" (Volume 97, No. 2528, June 1943, P. 540) discussing the use of a solution of Poly-Vinyl-Alcohol-Lacto-Phenol as a mounting medium for anopheline larvae. Through the kindness of Dr. Thone of "Science Service" and Dr. Criss of E. I. du Pont de Nemours, twenty-four jars of this solution arrived at Finnschafen in August 1944 and were forwarded to all the U. S. Malaria Survey Units in the area. Anyone who has had to pack and carry all the paraphernalia and supplies necessary for dehydrating specimens and mounting them in balsam will appreciate what it meant to have a mounting medium which could be used direct from the water in which the larvae swam.

By October 1944 the Southwest Pacific war was gaining momentum. The regiment had been reorganized into a medical group and moved forward for the invasion of the Philippines. When the orders came to go forward the Padre was on a recuperatory leave in Australia. By "way of thumb" from ship to ship he finally reached his men on 12 November not far from Tacloban on Leyte Island, but that was not before the convoy he was travelling with had had some unpleasant experiences with the "Kamikaze" fliers of the Japanese Air Forces. From this point he shipped back to the Army Museum all the last remains of the New Guinea specimens.

On Leyte there was little malaria. The anophelines often found in shell holes, although common, were not vectors. Only *Anopheles minimus fla-*

viros-tris is definitely known as such. Moreover, the Padre had bigger things to do. The casualties mounted swiftly on Leyte and every hospital literally bulged at the tent seams. Leyte, to everyone who was there at any time between the 20 October landing and the move to Luzon in January, remains a definitely bad dream, a stinking round of mud and dust, air raids and fox holes,—filth and discomfort.⁷

⁷If anyone thinks the short campaign on Leyte was easy, reading Jan Valtin's "Children of Yesterday" published in 1946 will be disillusioning. It bids fair to be the best war book that this global conflict will produce. Everyone who was there will vouch for its veracity.



Streams dammed by transient military units to provide places for bathing and laundry proved one of the worst problems for 135th Med. Regt. anti-malarial detachment, Cape Cretin, New Guinea, 1944.

In January came the long, seemingly endless procession of ships from San Pedro Bay, through the Straits of Surigao, between Mindanao and Bohol, past Negros and Mindoro, up the China Sea and into Luzon's Gulf of Lingayen.

When the Headquarters of the 135th debarked under Japanese gunfire at San Fabian in Pangasiana, the Padre's biologizing was over. The 135th Medical Group expanded to 26 medical units, including 5000 men and officers, which is perhaps the greatest aggregation of medical personnel under one single command in the history of the world. And for months the Padre and his Lutheran confrere, Chaplain A. G. Hemer, were the only Chaplains available to serve the personnel and

the patients of most of the 26 units scattered from the central plain of Northern Luzon and the mountains around Baguio all the way down to Lucena in Tayabas Province on the South. This gave him a chance to see the tragic destruction that had been wrought on one of the finest civilizations of the Orient.

From then on there was hardly an hour at the Padre's disposal for scientific avocations. His responsibilities grew by leaps and bounds, challenging all his time, ingenuity and effort. The dire need of the troops for the services of religion and what consolations it had to offer brought the Padre's scientific work in the tropics to a definite, but none the less appropriate, end.



National Meeting

First Assembly of Chapter Delegates Since 1941

The eleventh national meeting of the Chapters of Phi Sigma was held in the State Suite at the Copley-Plaza Hotel, Boston, on Friday and Saturday, 27-28 December, 1946. For three reasons no scientific sessions were conducted this year. It was felt that there was enough official business that had accumulated during the war years since 1941 when no national meetings were held. It was also felt that most of the members of the chapters were still getting their research problems under way and would hardly have enough results ready to warrant presentation. Finally, it was thought wiser to give the chapter delegates a chance to hear some of the outstanding post-war speakers at other scientific programs and to visit some of the educational and research institutions for which the host city to the American Association for the Advancement of Science Meetings has always been famous.

OPENING SESSION

What will probably come to be designated as the last national meeting (since Phi Sigma has now become International) was opened by Chancellor Warren of Tufts College at 9:30 A.M. on Friday morning. The usual convention committees on credentials, auditing, expansion, publications and nominations were appointed. The biennial reports of the Secretary and Treasurer were read and the meeting adjourned at 1:30 to enable the members to attend to committee duties or other scientific programs.

SECOND SESSION

Reconvening at 4:00 P.M. the national meeting first gave its consideration to the petition of the National University of Mexico for a charter. Then it passed on to discussion of a number of amendments to the Constitution and By-laws which had been proposed from various sources. The report of the Auditing Committee was accepted and a Committee on Resolutions was appointed. The meeting adjourned at 6:30 P.M.

THIRD SESSION

Meeting at 9:30 A.M. Saturday, 28 December, the delegates first heard the report of the Credentials Committee on the presence of official delegates from twenty-two Chapters. It then by unanimous vote approved the petition from the future Alpha Tau Chapter at the University of Mexico. The constitutional amendment calling for a permanent Council representative for the transaction of official business at each Chapter institution was discussed at length and passed unanimously.

The lengthy report of the Committee on Reactivation and Expansion, which had worked almost all night on their problems, was next given a thorough point-by-point consideration with appropriate resulting resolutions or actions. The report of the Committee on Resolutions which included a message of sympathy to former National President Dr. Leon J. Cole of Wisconsin was accepted unanimously. The report of the Committee on Publication which called for a change in the *Bi-*

ologist policies as recommended by the Editor was thoroughly discussed and accepted. The initiation fee was raised to seven dollars, with only three chapters dissenting.

Various emendations to the wording of the Constitution were discussed and passed. In the election which followed the report of the Nominating Committee, Dr. Karl F. Lagler of the University of Michigan was elected National Vice Chancellor to succeed Dr. Fred Barkley of Texas whose term of office had expired. The National Secretary was re-elected.

FIFTH SESSION

The last and final meeting was the Banquet held in the Salon Room at 7:00 P.M. in the Copley-Plaza. At the end of the meal the National Chancellor introduced the invited guests and after a few remarks presented Dr. Anselm M. Keefe, Editor of the *Biologist*, who gave his preliminary report on his biological experiences while serving three and one-half years as a Chaplain of a medical regiment in General MacArthur's forces in the Southwest Pacific.



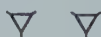
Phi Sigma Heads Navy's Medics

From "The Michigan Alumnus" of 15 February we learn that a 1923 initiate of Beta Chapter, Rear Admiral Clifford A. Swanson, a Navy officer since 1925, last November was named Surgeon General and Chief of the Bureau of Medicine and Surgery in the Navy. A specialist in the Medical Corps in diseases of the eye, ear, nose and throat, and an outstanding bronchoscopist, he has engaged recently in research on color vision and night vision which was of value in night operations during the war. Admiral Swanson was born in Marquette and attended public schools there. He was graduated from Northern State Teachers College before entering the University of Michigan, where he became a member of Galens, Alpha Omega Alpha, Phi Sigma and served on the Honor Council. After receiving his medical degree, cum laude, he later was graduated from the Postgraduate School of the University of Pennsylvania. He entered the Medical Corps

with the rank of Lieutenant (j.g.), and subsequently advanced through the various grades to his most recent promotion. During his service he has completed the general postgraduate course at the Naval Medical School in Washington, and has completed postgraduate courses in bronchoscopy and in diseases of the eye, ear, nose and throat. Before the second World War, he had served at sea on the *USS Dobbin*, and was stationed in various hospitals in the United States and the Philippine Islands. At the outbreak of the war he was serving on the staff of the Naval Medical School, Naval Medical Center, Washington. Early in the war he served as senior medical officer of the battleship *Iowa*, and later as medical officer on the Staff of the Commander, Battleships, U. S. Atlantic Fleet. During the later part of the war he was on duty at the Naval Dispensary, Navy Department, Washington, as Chief of the Eye, Ear, Nose and Throat Department and as

its chief operating surgeon. Besides his work in color vision, Admiral Swanson also has made studies of the effect of increased barometric pressure on the eye, which were of tremendous value in deep diving; and he made tabulations of oxygen consumption under varied barometric pressures which were of great value in the aviation field. At another period of the war, Swanson was in charge of the design and equipment for the Eye, Ear, Nose and Throat Department of the hospital ship, *Solace*. He was appointed by the former Surgeon General of the Navy to represent the U. S. Government at the Pan-American Eye Congress at Montevideo, Uruguay, and as medical officer accompanying the Congressional Committee on an inspection of the Pacific war area. For his services on these special assignments and in connection with medical research he was awarded a Letter of Commendation with authorization to wear the Com-

mendation Ribbon. He also has various other decorations, including the American Defense Service Medal, the American Area Campaign Medal, the European-African-Middle Eastern Area Campaign Medal and the World War II Victory Medal. In addition to being the author of numerous professional articles, he is a member of a number of professional organizations—a Fellow of the American College of Surgeons; a Fellow of the American Medical Association; a Fellow of the American Academy of Ophthalmology and Otolaryngology; a Diplomat of the American Board of Ophthalmology. Admiral Swanson is also a member of the University Club of Washington, D. C., and of the Army and Navy Club at Manila. His official address is 320 Harrison street, Marquette, but he and Mrs. Swanson are currently living at the Westchester Apartments in Washington.



“Biologist” to Change

Chapter Delegates Approve New Policy

When the Council met in Washington, D. C., in March of 1946 its members put pressure on the former Editor, Dr. Keefe to resume his connection with the *Biologist*. Chaplain Keefe was serving at that time as Assistant Personnel Officer in the office of Major General Luther D. Miller, Chief of Chaplains, in the War Department. There were some lengthy discussions but finally Chaplain Keefe consented on condition that he be given a chance to try out some new ideas when he took over.

Returning to his teaching position and office of Dean, Dr. Keefe put out the Fall issue of the *Biologist* largely out of materials submitted to the previous Editor, Dr. Edna Higbee of Alpha Epsilon Chapter, University of Pittsburgh.

During the American Association for the Advancement of Science Meetings in Boston last Winter Dr. Keefe made it his business to sound out the delegates as to their feeling on the projected changes. In order that these changes would be fully authorized the

Council was asked to appoint Committee on Publications to go into the matter. This was agreed to and the Committee consisting of delegates from Eta, Zeta, Rho, Alpha Lambda, Alpha Xi with Alpha Epsilon as Chairman, met with Dr. Keefe to discuss the project. Unknown to this Committee but almost simultaneously the Committee on Reactivation and Expansion was giving the same subject some serious thought.

Both committees brought their reports to the Saturday afternoon sessions and both were unanimously adopted.

Among those recommendations there were some which are hard to reconcile but the Editor herewith submits his ambitions for the future *Biologist*.

1. Put the magazine on a regular publication schedule, probably bi-monthly beginning with Volume XXX, No. 1, September-October, 1947.
2. Publish short (2,000 word) scientific papers of biological research interest. These papers must record at least the beginning of research problems, preliminary findings and the like. Historical papers, faculty speeches, etc., would be kept to the absolute minimum both as to number and as to length. All research papers would have to be approved by major professors or directors of research projects if submitted by undergraduates.
3. Establish a board of Editorial Assistants who would be specialists in different biological fields, available and competent to decide on the advisability of publication of dubious papers.
4. Cut Chapter News to practical hints for better meetings, titles and authors of papers read.
5. Institute a new section affording free announcements of motion picture or strip films and new slides available for Chapter meetings and programs.
6. Reduce all book reviews to the thumb-nail sketches which were printed before the war. These proved popular, at least with the publishing houses which often quoted the *Biologist* in their advertising matter.
7. Due to representations from College and other Librarians it does not seem advisable to make any drastic change in the size of the present pages. By using lighter weight paper and plain covers of something like manila or craft stock it should be possible to cut the mailing weight considerably.
8. Make up a mailing list each Fall and forward the magazine direct to student, alumni and Faculty members, thus eliminating the present uncertainty of distribution.

These are some of the editorial projects for the coming year. In how far they can be realized will depend on the cooperation of Chapter and alumni members, as well as the faculty advisors and the honorary membership. At this stage in our planning your comment and advice will be most welcome.

Early this summer it is hoped we can contact every professor in the biological field at institutions where there are active chapters. This does not mean that publication in the *Biologist* will be a favor reserved only to Chapter members or only to personnel of institutions where Chapters are located. It does mean, however, that these sites will be good jumping off places for the initiation of this new policy.

Chapter News Letters

Beta

—University of Michigan

President—Rodgers D. Hamilton, Univ. Museums, Univ. of Mich., Ann Arbor, Mich.

Vice President—Ann van der Woude, Dept. of Zoology, Univ. of Mich., Ann Arbor, Mich.

Recording Secretary—Jeanne Moore, Department of Zoology, Univ. of Mich., Mich.

Corresponding Secretary—Kurt Benjamin, Dept. of Medical Statistics, Univ. of Mich.

With the flooding of the campus with new faces, owing to the return of veterans of the wars, Phi Sigma found itself in the pleasant position of being overwhelmed with prospective members, and no longer in danger of becoming defunct on the campus, owing to lack of material to carry on the society's activities.

Some 70 members were taken into the society during the year, and meetings have attracted large numbers of non-members, making our program year one of our most successful ever. Owing to the late return of our then secretary, Mr. Hamilton, from his summer's field work in Alaska, the fall program was considerably curtailed, and we had only one meeting, a very interesting one, in which Dr. Robley Williams of the Physics Department, a student of the electron microscope and its potentialities, spoke on "The Physical Properties of Plant Viruses."

We had another speaker lined up, Dr. Arthur C. Twomey of the Carnegie Museum Ornithology Department, to give a fall talk, but Dr. Twomey was called away on an expedition, and we were obliged to postpone his lecture to an unnamed date.

With the New Year, Professor A. D. Moore gave our spring initiation talk, speaking on "Some Aspects of Animal Energy." Mr. Moore is an electrical engineer who is interested in the engineering of the animal mechanism, and is at present on sabbatical leave in

the University Museums here writing a book on this subject. His talk was extremely interesting, and proved very popular.

Professor Moore was followed by Dr. Charles W. Cotterman of the Heredity Clinic here, who gave a fine talk on "Some Problems of Human Heredity." As many Phi Sigma members here have become parents in recent years, or plan to soon, this talk was well attended and closely followed.

Following up Dr. Williams' talk on the use of the electron microscope in virus study, Dr. William Hovanitz, the nationally known geneticist, now on the faculty here, lectured to us on "The Nature of Genes and Chromosomes," and showed slides of electron photomicrographs of Chromosomes. This work is brand new and of considerable interest in the history of genetics, opening up new fields of investigation.

We have one more scheduled talk this year. On May 5, Miss Mary Jane Williams, formerly an officer of our chapter, and now a lecturer for the Michigan Department of Conservation, will talk and show movies of various Michigan wilderness areas.

A fine program of speakers is lined up for the coming fall, with the president of the University among those who will address us, and campus interest generally in Phi Sigma activities is at a high level. Several of our talks have been from departments cognate to Biology, and have led in some cases to collaborated research projects, or to the projection of such.

Faced with the problem of adjusting to the new high national dues the chapter has decided to try to get along locally on less money than it has in the past, in the hopes of making it possible for students to join with less financial strain.

One high point of our year was the election of alumnus Dr. Karl F. Lagler, now a member of the faculty here, and one of our faculty advisors, to the National Vice-Chancellorship.

Our present officers are: Rodgers D. Hamilton, President; Miss Anne van

der Woude, Vice-President; Kurt Benjamin, Corresponding Secretary; Miss Jeanne Moore, Recording Secretary. As you see, we have found the Secretary's job too heavy a load for one student, and have divided it into two offices. Our treasurer, Miss Anne Johnston, left school to accept a professional opportunity elsewhere, and Mrs. Betty Jalosky, who has been our treasurer before, served as treasurer pro tem until the election of Mr. Earl J. Larrison. Present active membership of the chapter amounts to 114, with many alumni on campus besides. Mr. Robert S. Feldman was our representative to the national convention in Boston. The annual Phi Sigma Scholarship award went to Mr. Robert Brown Short.

RODGERS D. HAMILTON
President.

Epsilon

—University of Denver

President—John Robertson, 670 S. Washington, Denver, Colo.

Vice President—Robert Melzer, 1200 S. Gaylord, Denver, Colo.

Secretary—Norma Moe, 906 S. Vine, Denver, Colo.

Treasurer—Walter Ford, 2201 S. Williams, Denver, Colo.

Zeta

—University of Wisconsin

President—Robert I. Brawn, 203 Genetics Bldg., Univ. of Wisconsin, Madison, Wis.

Vice President—Toge S. K. Johnson, 406 Biology Bldg., Univ. of Wisconsin.

Recording Secretary—O. H. Calvert, 210 Moore Hall, Madison, Wisconsin.

Corresponding Secretary—Jesse M. School, 67 Moore Hall, Madison, Wisconsin.

Treasurer—Lionel Dessureaux, 67 Moore Hall, Madison, Wisconsin.

Eta

—University of Akron

President—Margaret Grismer, 500 Delmar Avenue, Akron 10, Ohio.

Vice President—Thomas McQuay, University of Akron, Akron 4, Ohio.

Secretary—Martha Stoler, University of Akron, Akron 4, Ohio.

Treasurer—Aubrey Allman, University of Akron, Akron 4, Ohio.

Kappa

—University of Kansas

President—Burton Hodgson, Entomology Department, University of Kansas, Lawrence, Kan.

Vice President—Joseph Reid.

Secretary—George T. Brooks, Entomology Department, University of Kansas.

Treasurer—Edwin Galbreath, Dyche Museum, University of Kansas, Lawrence, Kan.

Lambda

—Montana State University

President—John VanLandingham, 3000 S. Higgins, Missoula, Montana.

Vice President—Pat Dehnert, 501 University Ave., Missoula, Montana.

Secretary-Treasurer—Betty Hyde, 501 University Ave., Missoula, Montana.

Nu

—Washington and Jefferson College

President—A. L. Grasmick, ATO House, 237 E. Beau Street, Washington, Pa.

Vice President—M. Kochman, 55 W. Prospect Ave., Washington, Pa.

Secretary-Treasurer—John S. VanKirk, 166 S. Wade Ave., Washington, Pa.

Nu chapter has been keeping up with the ideals of Phi Sigma. We have had many interesting lectures from our graduate students on a great variety of subjects.

In addition to these lectures it is our policy to have an outside speaker for our initiation dinner.

The most recent guest was Dr. Appleton, Dean of the Dental School at the University of Pennsylvania, who talked on "Florides and Dental Cavities." After the talk a brief question period was held, which is the usual procedure in these cases.

NEAL A. PERZ,
Vice President.

Pi

—Emory University

President—William E. Brillhart, Department of Biology, Emory University, Ga.

Vice President—Fred C. Shearer, De-

partment of Biology, Emory University, Ga.

Secretary—William S. Pollitzer, Department of Biology, Emory University, Ga.

Treasurer—William D. Hogan, Department of Biology, Emory University, Ga.

Recent activities of Pi Chapter have consisted mainly in the infusion of new blood and the planning of a program designed to give maximum opportunity for members to make use of the society as a clearing house for biological information. Stress is being given to fostering the spirit of biological research, particularly among the undergraduates.

The following were initiated into the Society in March: Dr. Alvin V. Beatty, William Brillhart, William Pollitzer, Fred C. Shearer, Harold Mulligan, and Bill Hogan.

After the election of the present officers, the following persons from Emory University were elected to membership in the Society: Delmar Batcheller, John Bogle, Lorry Brenner, John Greshaw, Tom Raymond, James Windsor, Mrs. Stephen Gray, Dr. Stephen Gray, Joe Benson, William Guest, Ed Pacious, Henry Perry, Henry Stallings, Fred Hiett, Oscar Freeman, Lynn Hicks, William Tripp, and Owen Youles. From Agnes Scott College, the following were elected: Dr. H. T. Cox, Sarah Cooley, Ann Eidson, Jean Williams, Genevieve Harper, Mariella Miller, Alice Newman, Betty Jean Radford, and Ruth Slentz. All will be initiated in May.

Plans for this quarter include a science exhibit sponsored jointly with the Pi Alpha Chemical Society and a picnic to which the faculty and students of the entire Biology Department will be invited.

FRED C. SHEARER,
Vice President.

Rho

—University of Illinois

President—William F. Rapp, Jr., 203 Harker Hall, Urbana, Ill.

Vice President—Susan L. Cartwright, 345 Natural History Bldg., Urbana, Ill.

Secretary—Roma A. Gould, 207 Harker Hall, Univ. of Illinois, Urbana, Ill.

Treasurer—Gertrude M. Hirsch, Physiology Dept., Univ. of Illinois, Urbana, Ill.

New officers for next year are as follows: President, George F. Ludvik; Vice President; Robert C. Honea; Secretary, Wilbur L. Bullock; Treasurer, Glen S. Winterringer.

At the annual initiation banquet held in February twenty-seven graduate students and three faculty members were initiated into Phi Sigma by Rho Chapter.

During the past year we have been privileged to have as speakers many members of the faculty of the University of Illinois who have given very interesting lectures from their own research and travels, many of them illustrated.

WILBUR L. BULLOCK,
Secretary.

Sigma

—University of Florida

President—Mr. B. A. Barrington, Biology Dept., Univ. of Florida, Gainesville, Fla.

Vice President—D. R. Miller, Biology Dept., Univ. of Florida, Gainesville, Fla.

Secretary—J. F. Beatty, Bacteriology Dept., Univ. of Florida, Gainesville, Fla.

Treasurer—G. K. Reid, Biology Dept., Univ. of Florida, Gainesville, Fla.

Upsilon

—Miami University

President—Charles Lee, East Chestnut, Oxford, Ohio.

Vice President—Etta Donahue, 87 Wells Hall, Oxford, Ohio.

Recording Secretary—Sandra Smith, 4 Tallawanda, Oxford, Ohio.

Corresponding Secretary—Julia Schneider, 314 North or 58 Wells Hall, Oxford, O.

Treasurer—Sarah Clevinger, 86 Wells Hall, Oxford, Ohio.

New officers of Upsilon Chapter for the following year are: President: Paul Daniels, Glenside, Pa.; Vice President: Lois Pierson, Middletown, Ohio; Secretary: Ruth Drummond, Evanston, Ill.; Treasurer: Marjorie Newton, Buffalo, New York.

On April 26, we had a field trip

where groups of students and faculty tried to outdo each other by seeing which group could find the most wild flowers. Following the field trip, we had our annual picnic after which everyone was a little tired, but none the worse for all the food they ate.

Interesting speakers for the year have been Dr. Daniel Seidy of Ohio State University who spoke on Conservation and Paul Daniels who spoke on herpetology.

RUTH DRUMMOND,
Secretary.

Phi

—University of New Hampshire

President—Leonard F. Getchell, 18 Bagdad Road, Durham, N. H.

Vice President—Patricia Gray, Univ. of New Hampshire, Durham, N. H.

Recording Secretary—Marjorie Dunnells, University of New Hampshire, Durham, N. H.

Corresponding Secretary—June Dixon, Univ. of New Hampshire, Durham, N. H.

Treasurer—David Faigle, Univ. of New Hampshire, Durham, N. H.

The past year has been one of increased activity and interest for Phi Chapter at the University of New Hampshire. Last winter we initiated 39 new members, the largest number for many seasons; at our spring initiation 8 more were admitted to the Chapter.

Our Program Committee this year did an excellent turn for us by suggesting that groups of five or six, all interested or majoring in the same field present a roundtable at each meeting in their specialized subject; time allowed for discussion and questions after the formal roundtable. By so doing nearly all of us were called upon to do additional reference work in our particular branches.

Some of these Roundtables were: Fish and Game, Forestry, Ecology, Biology, Horticulture, and Bacteriology. Our last meeting was "Pre-med Night," the guest speaker being Dr. C. R. Metcalf, M. D., from Concord, New Hampshire, who talked on Socialized Medicine.

Phi Chapter's annual banquet was held in March; the menu—lobsters or steak for everyone. At present we are looking forward to the spring camping

trip, our retreat being in the foothills of the White Mountains.

MARJORIE L. DUNNELLS,
Recording Secretary.

Chi

—Montana State College

President—Ann Aikens, Quad F, Bozeman, Mont.

Vice President—Helen Mott, Quad B, Bozeman, Mont.

Secretary—Lida Loffel, Quad F, Bozeman, Mont.

Treasurer—Bill Reiquam, 217 W. Koch, Bozeman, Mont.

Chi Chapter's activities for the past two quarters have included a novel initiation of new members fall quarter, and an all-school dance with a "biological" theme. Fall initiation was held in Morrison caves, nationally known caverns near the college.

New officers for next year are: *President*: Helen Mott; *Vice President*: Doris Humphrey; *Secretary*: Henry Kathrein; *Treasurer*: Alice Johnson.

HELEN MOTT,
President.

Psi

—University of Washington

President—Robert R. Parks, Zoology Dept., Univ. of Washington, Seattle, Wash.

Vice President—Edward L. Foubert, Jr., Dept. of Microbiology, Univ. of Washington

Secretary—Edith Pope, Zoology Dept., Univ. of Washington, Seattle, Wash.

During the past two or three years the Psi chapter has been holding most of its meetings at the home of Professor Melville Hatch, where a somewhat more informal atmosphere is possible than on the campus.

The October meeting was devoted to a talk by Professor Loren Donaldson, of the School of Fisheries, who told of the animal life on Bikini previous to the bombing. At the next meeting, Mr. Donald Wooton, a graduate student in Zoology, gave an account of his experiences at Nagasaki, Japan. Mr. Wooton was in the Navy during the war, and arrived in Nagasaki about thirty days after the bombing. In January, Professor Daniel Stuntz of the Department of Botany, lectured on Fungi.

The initiation meeting was a ban-

quet at the Faculty Club in February, at which time three faculty and twenty-three active members were initiated into the society. Professor Melville Hatch gave an address on the Inter-relationships of the Biological Sciences. At the April meeting, Professor Charles A. Evans, of the Department of Microbiology, gave a very interesting talk on viruses, in the course of which some important recent concepts concerning the nature of viruses were discussed.

ELOISE GIBLETT
Secretary.

Omega

—University of Oklahoma

President—Yvonne York, 517 S. Lahoma, Norman, Okla.

Vice President—W. McWhirter

Secretary—Virginia Dobson, Pi Beta Phi House, 702 S. Lahoma, Norman, Okla.

Treasurer—Rosalie Rayburn

Alpha Alpha

—University of Southern California

President—Joseph Comstock, Box 109, University of Southern California, Los Angeles, Calif.

Vice President—John M. Pierson, Box 109, Univ. of S. Calif., Los Angeles, Calif.

Recording Secretary—Labrie Ritchie, Box 109, Univ. of S. Calif., Los Angeles, Calif.

Corresponding Secretary—Lucille Schulte, Box 109, Univ. of S. Calif., Los Angeles, Calif.

Meetings this year have been highlighted by addresses by Dr. Bruce M. Harrison who spoke on "Recent Advances in Zoology," Walter Bennet on "Woody, A Natural History," and Dr. Rhett G. Harris on "The Role of Bacteria in the Manufacture of Tobacco." The spring dinner meeting on May 9th was entertained by a talk on the "Biological Reconnaissance of Southeast Asia" by the Curator of Ornithology of the Los Angeles County Museum, Mr. Kenneth Staeger.

Alpha Beta

—Mount Union College

President—Virginia Archer, 304 McKinley Street North, Canton, Ohio

Vice President—Peggy St. Clair, 1382 E. 105th, Cleveland, Ohio

Secretary—Anna Mary McConnell, 165 W. Maryland Ave., Sebring, Ohio

Treasurer—Mildred Glauser, 2105 S. Arch Street, Alliance, Ohio

Alpha Epsilon

—University of Pittsburgh

President—Kenneth Wertman, Dept. of Biology, Univ. of Pittsburgh, Pittsburgh, Pa.

Vice President—Brother Joseph Kuntz, Dept. of Biology, Univ. of Pittsburgh

Corresponding Secretary—Mrs. Lester M. J. Freedman, 4733 Centre Ave., Pittsburgh, Pa.

Recording Secretary—Thomas Brazelton, Dept. of Biology, Univ. of Pittsburgh

Alpha Kappa

—Hunter College

President—Alida Ruiz, 500 West 172nd Street, New York 32, N. Y.

Vice President—Bernice Lehrman, 1425 Grand Concourse, Bronx 52, N. Y.

Secretary-Treasurer—Maude Nicholls, 582 Beck Street, Bronx 55, N. Y.

Dr. Ephraim Schoor, director of research at Cornell Medical School, discussed the causes of shock at Alpha Kappa's first meeting of the semester on March 24. Dr. Schoor presented a remarkable theory, new to many of his listeners regarding the effect of vaso-excitor and vaso-constrictor materials in a condition of shock. Excellent slides were shown to illustrate the techniques utilized in the research and some of the statistical outcomes of the experimentation.

The evening of April 17 found the Alumni Room of Hunter College crowded beyond its capacity with Phi Sigma members eager to hear Dr. William J. Robbins, director of the New York Botanical Gardens discuss antibiotics. Two thousand specimens of Basidiomycetes have been collected from all parts of the world and are being tested, under Dr. Robin's direction, for anti-bacterial and anti-virus activity. The steps and some of the difficulties involved in the process were vividly presented and a set of fine slides were shown.

BERNICE LEHRMAN
Vice President.

Alpha Lambda

—University of Utah

President—Irving W. McNulty, 135 S. 7th Street, Salt Lake City, Utah

Vice President—Calvin McMillan, 221 E. 48th St., Murray, Utah

Secretary—Sheila Woolsey, 828 E. 1st South, No. 3, Salt Lake City, Utah

Treasurer—Jack Berryman

Alpha Mu

—University and State College of Oregon

President—Alvin R. Aller, 826 S. 11th Street, Corvallis, Oregon

Vice President—Dr. Herman Scullen, Dept. of Entomology, Oregon State College, Ore.

Secretary-Treasurer—Marguerite Cook, 434 S. 11th Street, Corvallis, Ore.

Alpha Nu

—University of New Mexico

President—Betty Sheedy, % Biology Dept., University of New Mexico, Albuquerque, N. Mex.

Vice President—William Widner, % Biology Dept., University of New Mexico

Secretary—Mrs. Mildred Hill, % Biology Dept., University of New Mexico

Treasurer—Gene Sumrell, 114 S. Yale Ave., Albuquerque, N. Mex.

Alpha Xi

—Rhode Island State College

President—Kenneth W. Kaye

Secretary—Mary-Elizabeth Davies, Delta Zeta, R.I.S.C., Kingston, R. I.

Alpha Xi chapter has high hopes of bringing its program back to the pre-war basis this year. Programs by student members will be a feature this year to build a strong interest in Phi Sigma.

October 28, a preinitiation meeting was held for the sixteen prospective members. Dr. Donald Zinn, a member of the Zoology Department here at Rhode Island, gave an excellent lecture on the Marine Biological Laboratory at Wood's Hole, Mass. Dr. Zinn also showed interesting slides of the M. B. L.

Early in December we held initiation. Our chapter now looks more nor-

mal as a goodly number were initiated. The prospective members must first write a paper on a biological subject. The best ones will be published in "The Cell," our annual publication.

MARY-ELIZABETH DAVIES,
Secretary.

Alpha Omicron

—Marquette University

President—Lorraine A. Sievers, 450 N. Pinecrest, Milwaukee 13, Wisconsin

Vice President—Eugene Kitzke, 2406 S. 19th St., Milwaukee 7, Wisconsin

Recording Secretary—Leo C. Massopust, Jr., 2931 W. 46th St., Milwaukee 10, Wis.

Corresponding Secretary—Mary Ann Swaebly, 946 N. 68th St., Milwaukee 13, Wis.

Treasurer—A. Joseph Gillan, % Milwaukee Public Museum, Milwaukee 3, Wis.

Alpha Pi

—University of Colorado

President—Jean Cross, 1052 12th Street, Boulder, Colo.

Secretary—Virginia Yeater, 891 18th Street, Boulder, Colo.

On April 18th Alpha Pi Chapter held a steak fry and initiation at which time twelve members were initiated. Entertainment in the form of humorous biological papers and singing of biological songs was offered.

JEAN CROSS, *President.*

Alpha Rho

—University of Arkansas

President—Pat Poindexter, Delta Delta Delta, Fayetteville, Ark.

Vice President—Irvin Rothrock, 306 W. Lafayette, Fayetteville, Ark.

Secretary—Mrs. R. H. Boon, 317 North College, Fayetteville, Ark.

Alpha Sigma

—University of Texas

President—Rae Phelps

Vice President—Shirley Scott, 1701 Hartford Road, Austin, Tex.

Secretary—Grace Orndorff, Newman Hall, Austin, Tex.

Treasurer—Chester G. Cockran, B. L. 314, Univ. of Texas, Austin, Tex.

Book Reviews—New Books

Except for the signed reviews, the thumbnail sketches of current biological literature appearing in this section are not meant to be exhaustive or deeply critical. They aim to survey the rapidly growing field of biology. Naturally these reviews represent the candid opinions of various readers not necessarily those of the National Council, nor even those of the Editor.

ELEMENTS OF GENETICS by COLIN, *Blakiston Company, Philadelphia. 2nd Ed. 1946. Price \$3.50.*

The book is for the college student beginning the study of Genetics. It has been revised to include the new principles and applications of established laws. New illustrations as well as new problems have been added. Some of the chapters have been rearranged and reorganized, so that the meanings will be clearer. Material has been added on the nature and physiology of viruses and their relation to genes.

HANDBOOK OF MICROSCOPIC CHARACTERISTICS OF TISSUES AND ORGANS, by K. A. STILES. *Blakiston Company, 1012 Walnut Street, Philadelphia 5, Pa. Price \$1.75. 1946.*

A manual of invaluable aid in learning quickly the concepts of histology. The descriptions will help anyone to recognize the microscopic pictures of tissues so that they can be identified no matter how they are cut and stained. An excellent aid to any text of histology as it guides in the manner of identifying tissues. A glossary and a bibliography are included.

HANDBOOK OF LIZARDS—THE LIZARDS OF THE UNITED STATES AND CANADA by HOBART M. SMITH. *Comstock Publishing Co., Ithaca, N. Y. xxi-557 pp., 135 plates, 41 maps. 1946. \$5.75.*

This book fills a long-existing need for an authoritative semi-popular account of that interesting group of North American vertebrates, the Lizards. In an era which has given us increasingly better handbooks about North American animals, the Handbook of Lizards will quickly take its place as the handy, interesting reference about lizards, readily available to settle questions which may arise about the identification, the distribution, or the care of these interesting

creatures. The publishers were shrewd in selecting Hobart M. Smith as the author, since his wide and thorough knowledge of the lizards, both in the field and in the laboratory, places him as one of the best present-day American saurologists. The readability and make-up of the book are evidence of the work and painstaking care given to the task by both author and publisher.

The sixty page Introduction is a concise and accurate account of the general biology of the lizards. In this section, such topics as the shedding of skin, the senses, and some of the habits are discussed. The introduction is followed by a glossary giving the definitions of scale characters and terms which are used in the discussion of the species. Then Dr. Smith writes about the general facts of habits, life-history, color, and care of lizards. The inclusion of a series of short biographical notes about some American students of lizards will be helpful in acquainting laymen with some of the scientists.

The second part of the book is devoted to the 130-odd species of lizards inhabiting the United States and Canada. There is a series of excellent and workable keys, accompanied by well drawn figures, which will serve to distinguish the various species easily. The discussion of each species begins with an account of the range and is followed by a discussion of size, color, scalation, habitat, and habits. Although each of these sections will hold the attention of the reader, he will probably find the sections on habitat and habits contain the most interesting kernels. Dr. Smith has generously sprinkled his discussion with references to more detailed accounts of the various topics, so that the more interested student can go on to further

study. As an inducement to further work, there is a statement of the problems which are still unsolved for each species. Many of these concern the habits of the species, thus offering enticing bits of research for the home naturalist.

There is an excellent series of black and white photographs which help to outline the color pattern and give some idea of the appearance of the lizard. It is regrettable that, in some instances, these do not bring out sufficient details. The maps show the general distribution of each species of lizard, and, in combination with the state list of lizards and literature, are of value in determining the lizards living in any particular area. The list of literature is certainly a most complete introduction to the reading matter available about these animals.

It is to be expected that in a book of this size and scope, there should be some errors. It is remarkable to find so few, and these are mostly minor. In one instance, the name used on a map differs from that used in the text.

The Handbook of Lizards is certainly the answer to a prayer for an authoritative and exhaustive account of American lizards. It will certainly serve for a long time to come as the excellent guide to the biology of this group both for the professional and for the amateur student of lizards.

ALBERT G. SMITH

(Alpha Epsilon Chapter)

(New Editorial policy makes it imperative that no further lengthy book reviews be accepted for the Biologist. From now on they will be limited to one paragraph and unsigned. Editor.)

HENRY SEWALL, PHYSIOLOGIST AND PHYSICIAN, by GERALD B. WEBB AND DESMOND POWELL. *The Johns Hopkins Press, Baltimore, 1946. Price \$2.75.*

This is a sympathetic and interesting biography of the Hopkins-trained physiologist to whose research and inspiration the world owes the beginnings of its knowledge of immunization against snake venom. Succumbing ultimately to a family predilection

for tuberculosis, he gave up his research, settled in Denver, secured a medical degree, and devoted not a little of his life to private practice. Research triumphed and before his death at eighty-one he had made substantial contributions to modern treatment of the "white plague."

MUSCLE TESTING by DANIELS, WILLIAMS, & WORTHINGHAM. W. B. Saunders Company. Philadelphia. Price \$2.50. 1946.

Invaluable to the physician or student of medicine because the tests presented determine the degree of muscular weakness resulting from injury or disease. Also a good book for the physical educator to help him with the optimum development of the body and the prevention of disabilities. The text can also be used for the teaching of kinesiology.

SCIENCE SINCE 1500, by H. T. PLEDGE. *The Philosophical Library, 15 E. 40th St., New York 15, N. Y. 1947. Price \$5.00.*

In short, almost staccato sentences, the author sweeps the reader down through the last four hundred years of mathematics, physics, chemistry and biology so rapidly that the casual reader would be pardoned if he found himself intellectually out of breath. This is not likely, for this is not a book for the casual reader. Rather it is a book for deeply interested students, those whose background is adequate to grasp the interrelations of the four sciences in their parallel development. The author is the Librarian of the Science Museum of London, and has not let his mathematical interests color his presentations of the other three sciences too deeply. Apparently the book was printed in England, but it rejoices in the most complete subject and name indices that have ever graced a British book of science. The illustrations are unusually well chosen, as are the maps, and contribute no little to the general effectiveness of the work. American chauvinists will not like the short shrift our national contributions to modern science are given.

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